



**LOWELL PUBLIC SCHOOLS**  
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To: Superintendent  
From: James Hall  
Date: June 26, 2023  
Re: STEM Academy Modular Project

Request that the School Committee review the enclosed proposed sites and select one site to be prepared for bidding. Site Plan L3.1 is recommended (p. 1). While it is the recommended site, it is projected to cost almost \$600,000 more than is currently budgeted (about \$5,400,00 for construction instead of the \$4,800,000 currently budgeted-see attachment). Alternatively, Site Plan L2.3 would come in under budget but would only allow for 6 modular classrooms.

Dr. Passeri summarizes why version L3.1 is recommended below:

Our goal, from the onset of this process, was to improve conditions for our school community, including an unsuitable restroom layout for K-1, while also freeing up space to have more adequate facilities for subjects such as music, and STEM programming. Though similar in the classroom layout, the model presented on L3.3 would present much more of a challenge within the existing floor plan of the school, and there would be a lot of movement for students all across the building. I would have concerns about the proximity to the main office, nurse's office, and especially, the cafeteria, since these would all require a lot of travel time. The model presented in L2.3 would present the most significant concerns, where there would still be the safety challenges I just described, but with a layout of only six classrooms, we would not be able to fit two grade levels, so this model would split a grade level and place them directly on the other side of the school from the rest of their peers. Even if the classrooms were purposed for something else, this would continue to pull students completely across the building. This model would require a major restructuring of the current floorplan, and also, would not seem to be as cost effective when compared to the 8-classroom models. I request the School Committee to move forward with the plan, as presented in L3.1, which would enable our K-1 students and our staff to have more equitable conditions, as compared to other schools within the Lowell Public Schools. On behalf of the STEM Academy community, we urge you to move forward with this project.

I agree with Dr. Passeri's recommendation. If monies are to be spent on providing modular classrooms, it is recommended to spend the additional monies in order to provide the space needed by the school.



Comments

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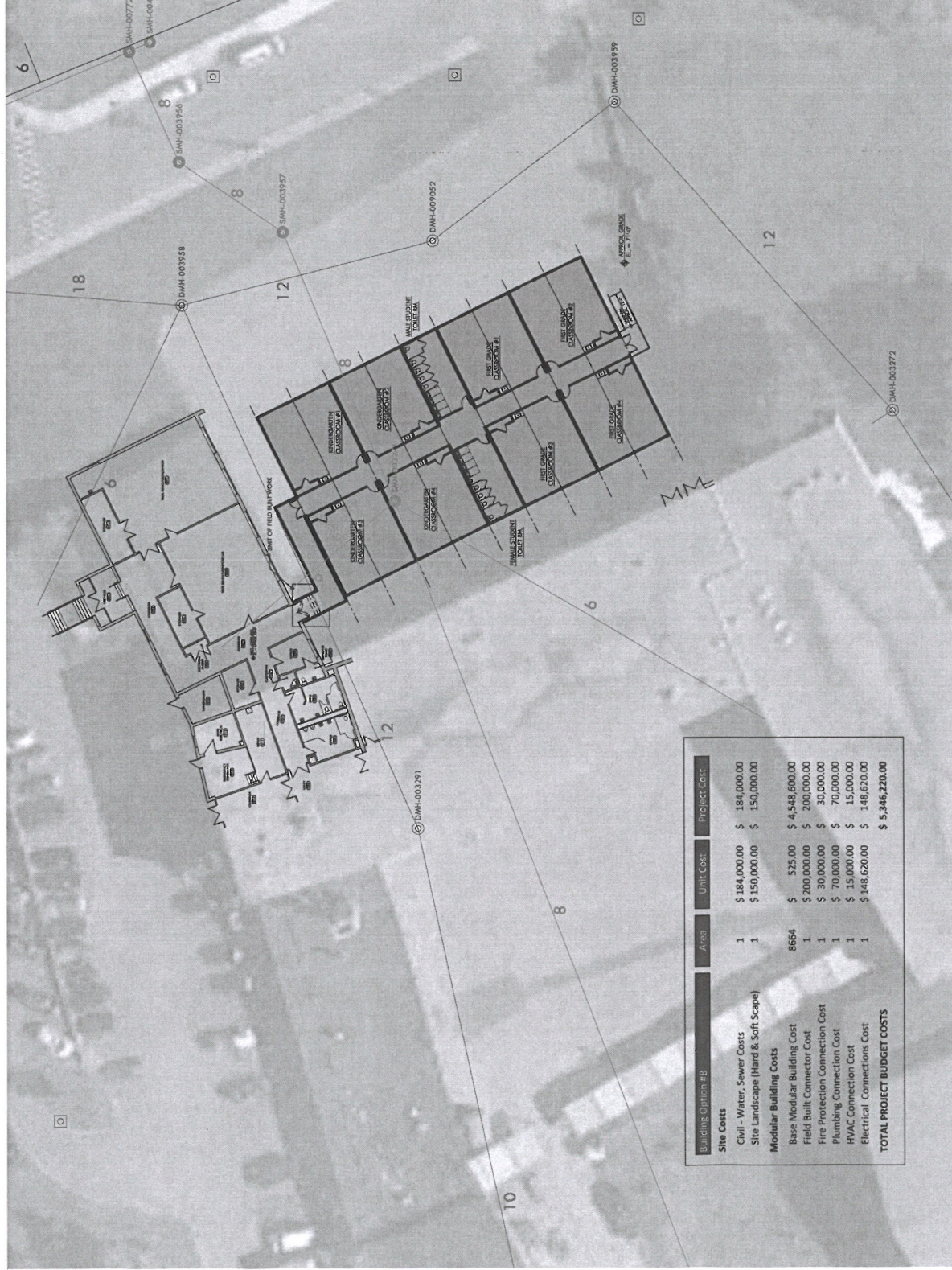
Revisions

**MODULAR EXPANSION STUDY**  
**The STEM ACADEMY**  
**AT THE ROGERS SCHOOL**  
43 Highland Street, Lowell, MA

**SITE PLAN**  
**AREA #1**  
**BUILDING OPTION B**

Project Number  
Drawing Scale  
Drawing Date  
Drawn By  
Checked By  
Date Issued

**L3.1**



Building Option #B	Area	Unit Cost	Project Cost
<b>Site Costs</b>			
Civil - Water, Sewer Costs	1	\$ 184,000.00	\$ 184,000.00
Site Landscape (Hard & Soft Scope)	1	\$ 150,000.00	\$ 150,000.00
<b>Modular Building Costs</b>			
Base Modular Building Cost	8564	\$ 525.00	\$ 4,543,600.00
Field Built Connector Cost	1	\$ 200,000.00	\$ 200,000.00
Fire Protection Connection Cost	1	\$ 30,000.00	\$ 30,000.00
Plumbing Connection Cost	1	\$ 70,000.00	\$ 70,000.00
HVAC Connection Cost	1	\$ 15,000.00	\$ 15,000.00
Electrical Connections Cost	1	\$ 148,620.00	\$ 148,620.00
<b>TOTAL PROJECT BUDGET COSTS</b>			<b>\$ 5,346,220.00</b>

**MODULAR CLASSROOM** **FIELD BUILT CONNECTION**



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Revisions

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**MODULAR EXPANSION STUDY**  
The STEM ACADEMY  
AT THE ROGERS SCHOOL  
43 Highland Street, Lowell, MA

**SITE PLAN**  
**AREA #3**  
**BUILDING OPTION A**

Sheet Number  
2023.000

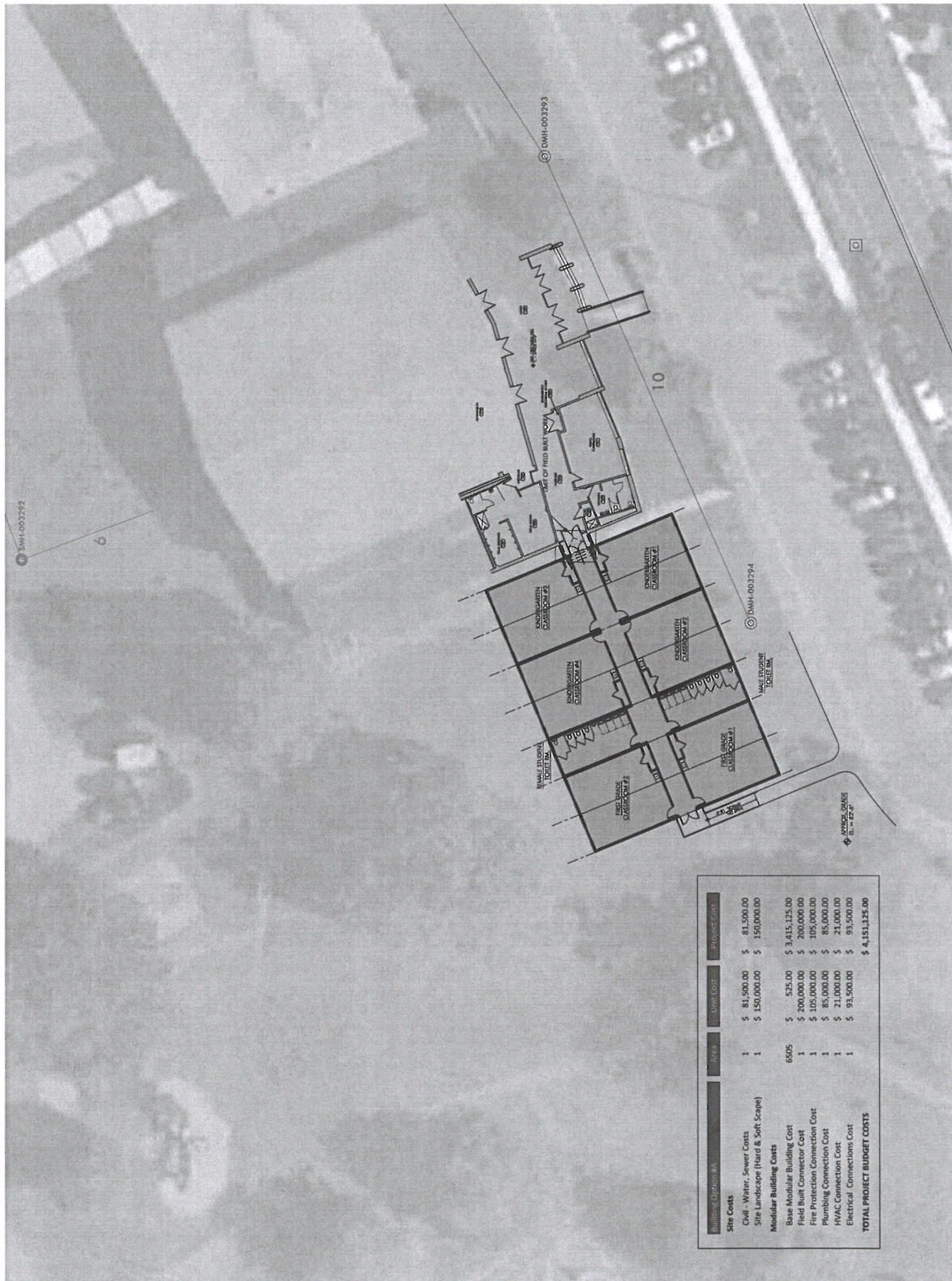
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Drawn By  
GAC

Checked By  
GAC

Date Issued  
06/27/23

**L2.3**



Building Option #1	Area	Unit Cost	Project Cost
<b>Site Costs</b>			
Civil - Water, Sewer Costs	1	\$ 81,500.00	\$ 81,500.00
Site Landscape (Hard & Soft Scope)	1	\$ 150,000.00	\$ 150,000.00
<b>Modular Building Costs</b>			
Base Modular Building Cost	6505	\$ 525.00	\$ 3,415,125.00
Field Built Connections Cost	1	\$ 200,000.00	\$ 200,000.00
Fire Protection Connection Cost	1	\$ 105,000.00	\$ 105,000.00
Plumbing Connection Cost	1	\$ 85,000.00	\$ 85,000.00
HVAC Connection Cost	1	\$ 21,000.00	\$ 21,000.00
Electrical Connections Cost	1	\$ 93,500.00	\$ 93,500.00
<b>TOTAL PROJECT BUDGET COSTS</b>			<b>\$ 4,153,125.00</b>

**MODULAR CLASSROOM** **FIELD BUILT CONNECTION**





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### Consultants

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**Revisions**

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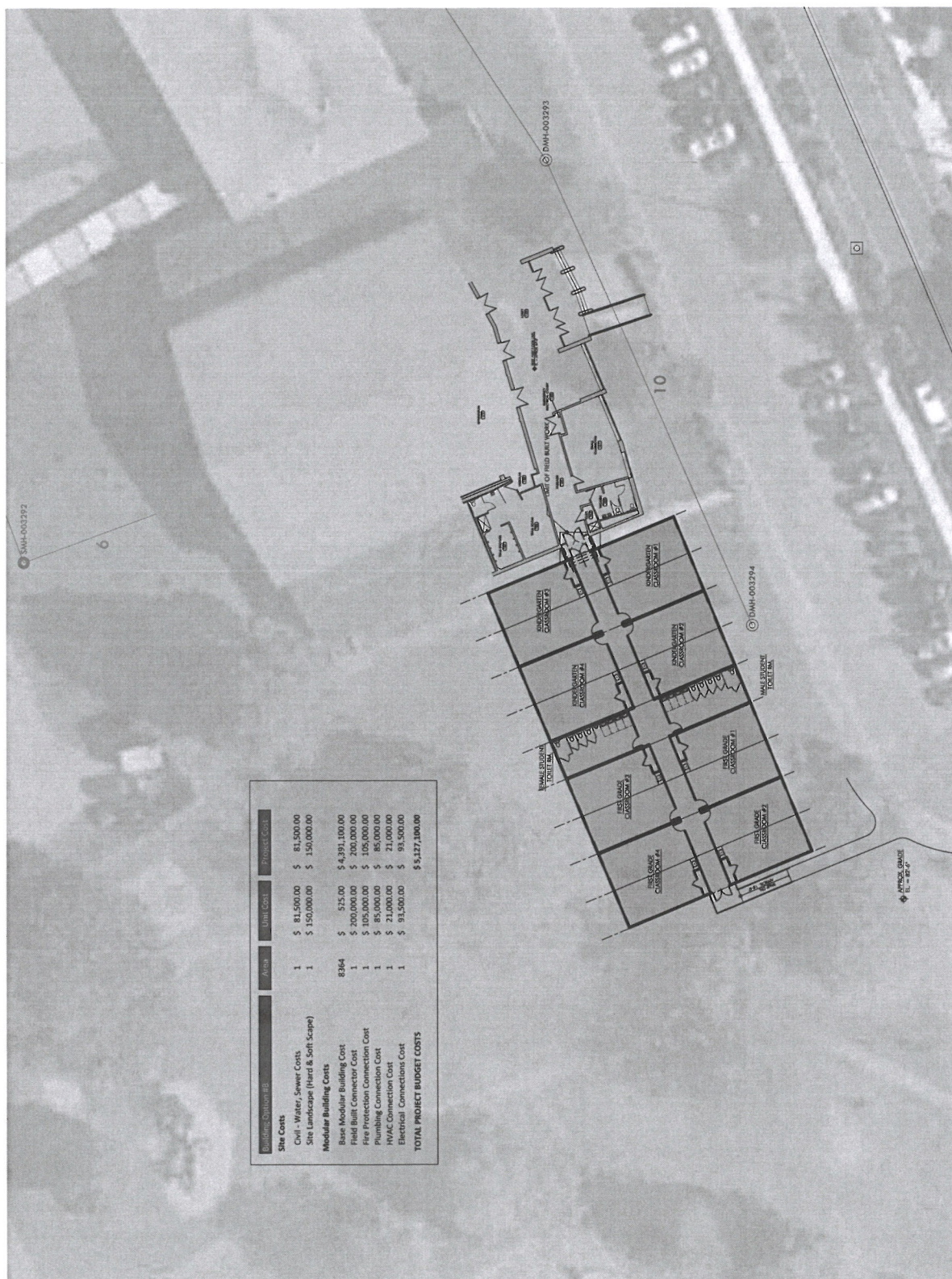
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**MODULAR EXPANSION STUDY**  
The STEM ACADEMY  
AT THE ROGERS SCHOOL  
43 Highland Street, Lowell, MA

**SITE PLAN  
AREA #3  
BUILDING OPTION B**

Project Number 2023.060	Drawing Scale 1/16" = 1'-0"	Drawn By GMC	Checked By GMC	Date Issued 06/22/23
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### 13.3



MODULAR CLASSROOM FIELD BUILT CONNECTION



## Lowell Modular Building Project at the STEM Roger School Option and Budget Analysis

Email sent to the City of Lowell and the Lowell School Department on June 26<sup>th</sup>, 2023.

### **Summary update:**

The “Feasibility Study” team has presented:

- Scope considerations:
  - 3 potential locations on the existing school site, 2 of which might be subject to article 97 restrictions “site 2 & 3” and 1 on the existing paved parking lot “site 1”.
  - 3 classroom layouts the have 6 and 8 classroom layouts that include appropriate number of bathrooms:
    - Layout A. - 6 classroom layout – 4 kindergarten and 2 regular
    - Layout B.- 8 classroom layout – 4 kindergarten and 4 regular
    - Layout C. - 8 classroom layout – 8 regular
- Budget process considerations:
  - “Rough Order of Costs” (this should be considered as +/- 20%) for each configuration has been presented to the owner, upon selection of the option to progress to the next step (at this stage is Site 1/Layout B), the design team will generate more detailed design information and send it to our estimator for a “construction budget” number for School Committee approval.
- Schedule considerations:
  - The current schedule must be maintained, or the end dates will extend, current timeline:
    - 6/30/23 - Selection of the Option to be developed - (at this stage is Site 1/Layout B)
    - 7/11/23 – define all required building elements and details with the owner
    - 7/18/23 – Scope review with the owner and send Design Document to the estimator
    - 7/31/23 – Design team issue bid documents to the City for bidding
    - 8/2/23 – Bid documents are posted for bidders
    - 8/30/23 – bids are received
    - 9/1/23 – City issues a contractual “notice to proceed” and issues a signed contract within 5 weeks
    - Completed project by June 30, 2024. (The awarded Contract allows for a 10 month design and construction duration after the “notice to Proceed”)

The Current Project budget is carrying **\$4.8 million for the modular construction**, see following project budget:



## Project Budget Summary

Showing 1-10 of 10

Budget Category	Orig. Budget	Transfers	Upd. Budget	Contract Amt.	% Committed	Expended	% Expended	Contract Remaining	Bud. Balance
<b>0000-0000 Administration</b>									
0001-0000 City/School costs	\$30,000.00	\$0.00	\$30,000.00		0%		0%	\$0.00	\$30,000.00
0002-0000 3rd Party Inspections	\$30,000.00	\$0.00	\$30,000.00		0%		0%	\$0.00	\$30,000.00
0003-0000 Architectural oversight/review	\$70,000.00	\$0.00	\$70,000.00		0%		0%	\$0.00	\$70,000.00
<b>Total - 0000-0000 Administration</b>	<b>\$130,000.00</b>	<b>\$0.00</b>	<b>\$130,000.00</b>					<b>\$0.00</b>	<b>\$130,000.00</b>
<b>0100-0000 OPM</b>									
0101-0000 Base Contract Scope	\$280,000.00	\$0.00	\$280,000.00	\$280,000.00	100%		0%	\$280,000.00	\$0.00
0102-0000 Feasibility Study and Bidding Scope	\$236,880.00	\$0.00	\$236,880.00	\$236,880.00	100%		0%	\$236,880.00	\$0.00
<b>Total - 0100-0000 OPM</b>	<b>\$516,880.00</b>	<b>\$0.00</b>	<b>\$516,880.00</b>	<b>\$516,880.00</b>				<b>\$516,880.00</b>	<b>\$0.00</b>
<b>0200-0000 Design/Build Contractor</b>									
0201-0000 Design Phase	\$300,000.00	\$0.00	\$300,000.00		0%		0%	\$0.00	\$300,000.00
0202-0000 Submittal Phase	\$100,000.00	\$0.00	\$100,000.00		0%		0%	\$0.00	\$100,000.00
0203-0000 Construction Phase	\$4,400,000.00	\$0.00	\$4,400,000.00		0%		0%	\$0.00	\$4,400,000.00
<b>Total - 0200-0000 Design/Build Contractor</b>	<b>\$4,800,000.00</b>	<b>\$0.00</b>	<b>\$4,800,000.00</b>					<b>\$0.00</b>	<b>\$4,800,000.00</b>
<b>0300-0000 Contingency</b>									
0301-0000 Soft Costs	\$25,000.00	\$0.00	\$25,000.00		0%		0%	\$0.00	\$25,000.00
0302-0000 Construction Costs	\$100,000.00	\$0.00	\$100,000.00		0%		0%	\$0.00	\$100,000.00
<b>Total - 0300-0000 Contingency</b>	<b>\$125,000.00</b>	<b>\$0.00</b>	<b>\$125,000.00</b>					<b>\$0.00</b>	<b>\$125,000.00</b>
<b>Total</b>	<b>\$5,571,880.00</b>	<b>\$0.00</b>	<b>\$5,571,880.00</b>	<b>\$516,880.00</b>				<b>\$516,880.00</b>	<b>\$5,055,000.00</b>

**The Total Project budget is Currently \$5,571.880.00.**

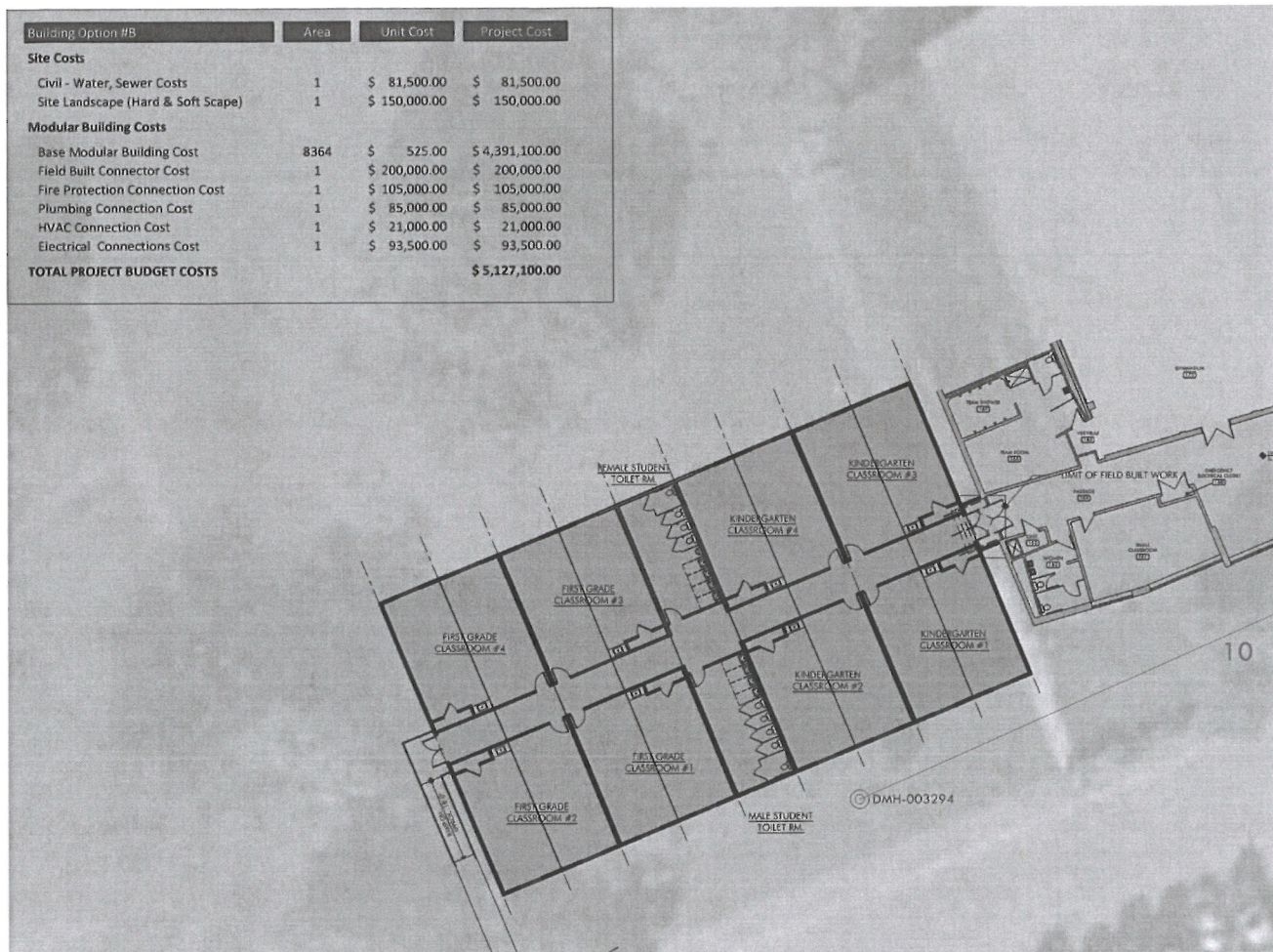
3 options were discussed by the team to present to members of the City and School department to represent the options and preferences by the school administration staff to date. The options and rough order of Magnitude(ROM) (+/-20%) numbers are represented below:

- 1st choice - Option Site 1, classroom layout B – ROM Construction \$5,400,000. – this is \$600,000 above the current budget of \$4,800,000.





- 2<sup>nd</sup> choice - Option Site 3, classroom layout B – ROM Construction \$5,200,000. – this is \$400,000 above the current budget of \$4,800,000. However, this site may be restricted by Article 97.



- The “Stay Within Budget” NOT PREFERRED - Option Site 3, classroom layout A – ROM Construction \$4,200,000. – this is \$600,000 below the current budget of \$4,800,000. However, this site may be restricted by Article 97.

